Distribution: © BMW NA	Dealer Principal	Sales Manager	Accessory Manager	Parts. Manager	Service Manager	Set-Up Workshop
Bulletin Date 08/20/2000 Bulletin #: 2748		Main Group: 32 Steering		For USA Only		

BMW Motorcycle Operations
Service Bulletin

Subject: R1100/850 Model Throttle Cables

Problem: Engine surges at constant speed. Difficult to adjust and balance the left and right throttle bodies.

Cause: Differences in opening and closing of the throttle butterflies caused by friction in the throttle cable.

Remedy: 1. Fit a low friction throttle cable.

2. Check the following to ensure optimum results:
   Ignition timing
   Spark plugs (FR 6DDC) type / condition (reference SI 2739 in Main Group 12)
   Valve clearances
   Correct Cat. code plug
   Check throttle housing inlet manifold for air leaks

3. Synchronize the throttle butterflies as illustrated on the attached procedure.
Note: Make sure there are no obstructions in the vacuum stub pipe prior to connecting the Synchro tool.

Parts:

32 73 1 342 149	R 1100 RS
32 73 1 342 150	R 1100 RT, R, & GS

Information: The Low friction throttle cable was introduced into series production as follows:

R 1100 RS	from 0312537 onwards (06/95 prod.)
R 1100 GS	from 0381479 onwards (06/95 prod.)
R 1100 R	from 6379238 onwards (06/95 prod.)
R1100RT	from 0440499 onwards (06/95 prod.)
R 850	from the start of production

Warranty: The BMW Motorcycle Limited Warranty will cover the replacement of the throttle cable for motorcycles in the affected VIN range. Authorization is **not** Required**.** File a warranty claim, using the following information:

Please initial and route to the following before filing

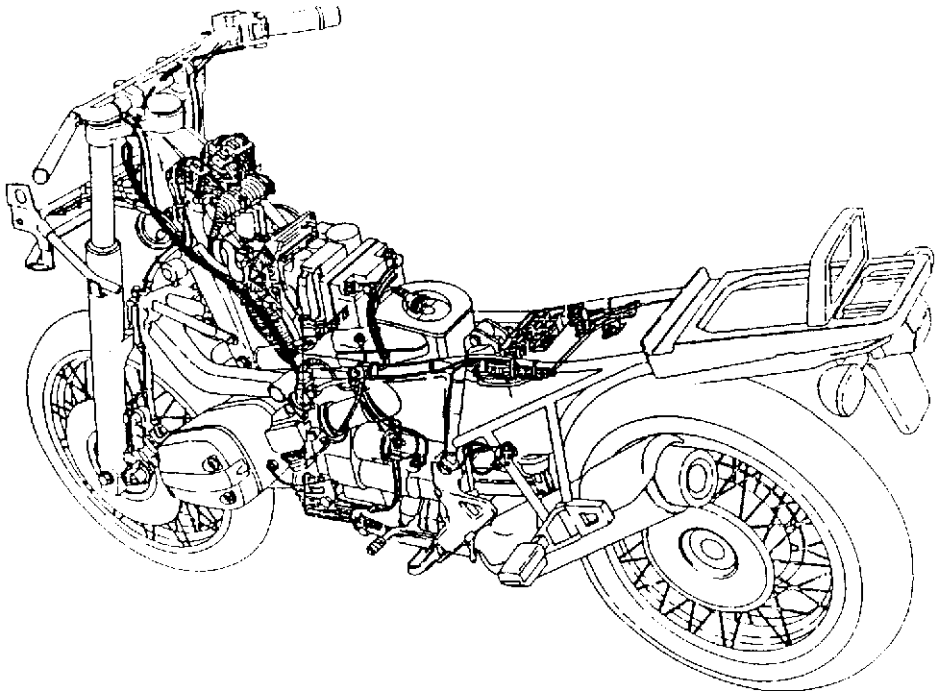
Service	Parts	Sales	Warranty	Tech #1	Tech #2	Tech #3	Tech #4

Defect Code	00 11 00 00 00
Flat Rate Number	32 72 305
Flat Rate Units	15 - (R 1100 RS & R) 14 - (R 1100 GS) 23 - (R1100RT)

Note: If the repair work is performed during routine service use the following:

Defect Code	00 11 00 00 00
Flat Rate Number	32 72 305
Flat Rate Units	06 - (R 1100 RS & R) 06 - (R 1100 GS) 06 - (R1100RT)

Repair: Install the throttle cable with large sweeping curves. Ensure the throttle position is not affected when the handle bars are turned. We recommend you run the cable as shown in the drawing.



Very truly yours,

BMW of North America, Inc.

Frank Stevens
Manager - Motorcycle Operations
Motorcycle Group

Daniel E. Browning
Service Technical Manager
Motorcycle Group

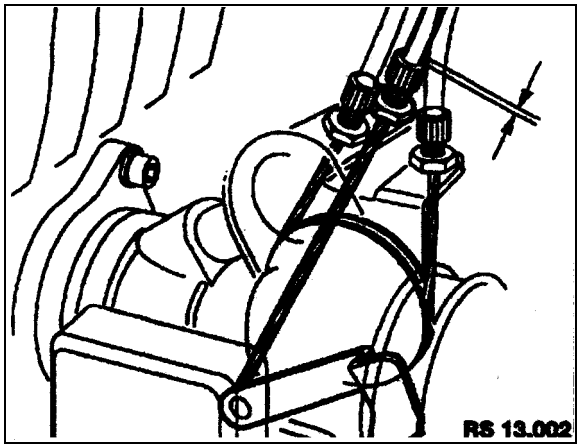
Attachment: 2748P.DOC

R 1100/850 Models Only

R1100RT & RSL - remove the left fairing panel.

Adjust the choke cable (increased idle) to 1 mm (0.03937 in.) free play.

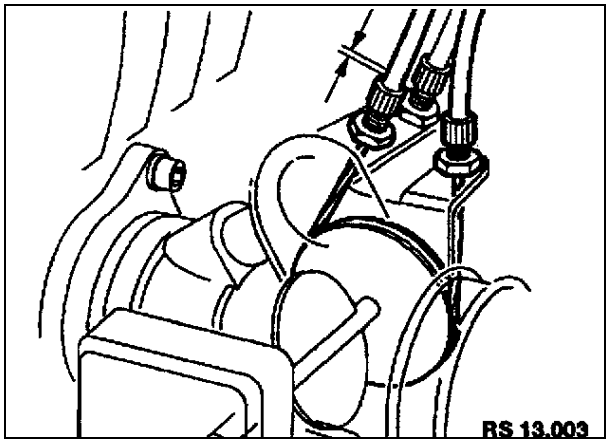
Please note the throttle butterfly stops are set by the manufacturer using a flow bench - do not adjust the stop screws!



left throttle body

Throttle Cable: Set the throttle cable free play to approx. 0.5mm (0.0197in.) with the handle bars at full lock.

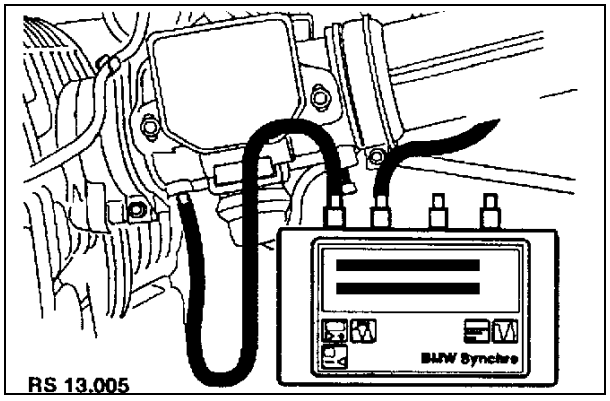
Note: Warm the bike on the road and **use a fan while on the lift** to maintain proper operating temperature when making any adjustments. If the adjustments begin to fluctuate, the normal operating temperature has been exceeded. Take the bike back out on the road, then re-adjust.



left throttle body

Connect the BMW Synchro tool: Check the vacuum stub pipes for dirt and grime, prior to connect up the BMW Synchro tool 88 88 6 13 0 800

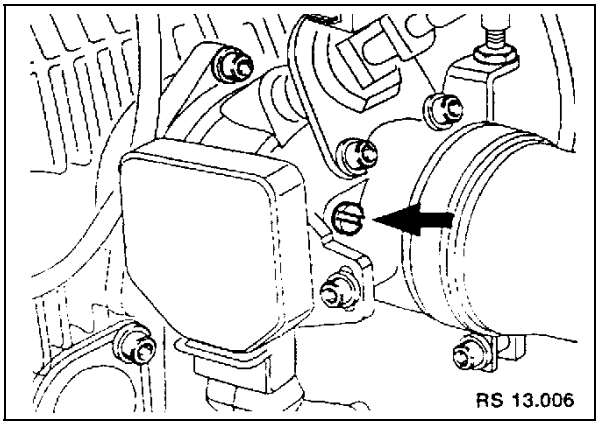
The rise of the columns is not as important as the balance of the columns at RPM. The left and right columns should be as close as possible at - idle, at 3000 RPM, and at 5000 RPM.



Check the idle-air screws for control by screwing them gently in until they stop, that cylinder should fall off then come back on when adjusted to the basic setting.

R1100GS, R1100R, & R850R 2 1/4
R1100RS, & R1100RT 1 1/2

If you do not have "control" of the throttle body , find out what is wrong and correct it. Adjust the idle-air screws until the columns are even on the gauge with an engine RPM of: 1000 ☞ 150.

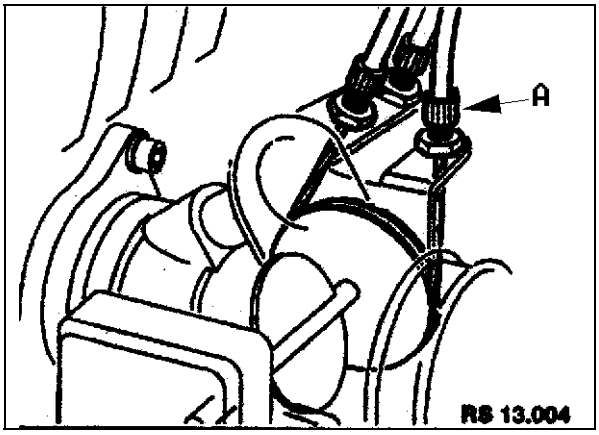


The idle-air screws should not require much adjustment from their basic setting

Using the BMW Synchro tool balance the right throttle body to the left, using cable adjuster (A) on the left throttle body, shown in the illustration at the right.

Check the balance at idle, at 3000, and 5000 RPMs.

If the adjustments begin to fluctuate, the normal operating temperature has been exceeded. Take the bike back out on the road, then re-adjust.



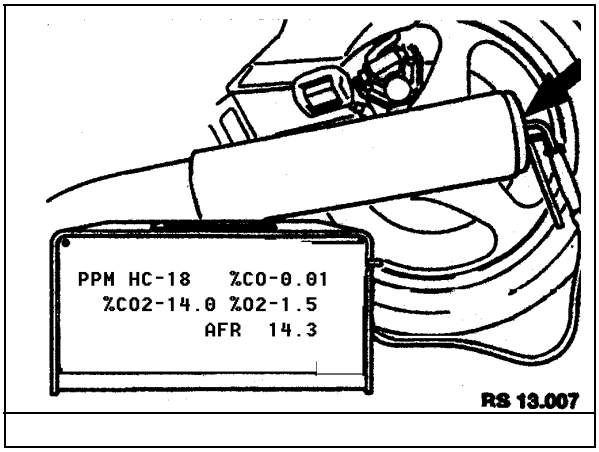
left throttle body

Exhaust Gas Tests: All basic setting (timing, valve adjustment, throttle cable adjustment etc.) must be correct and the engine must be at, but not above operating temperature.

100° C (212° F).

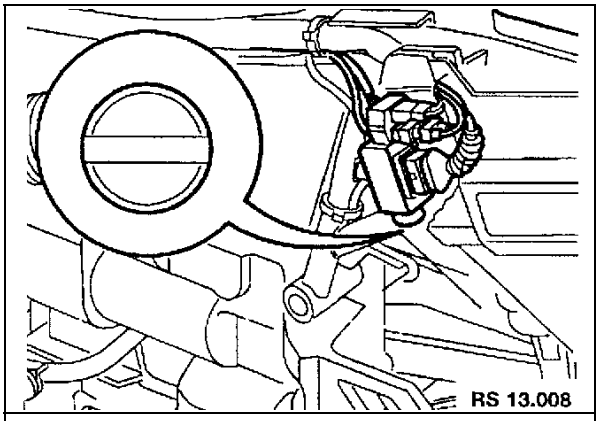
On motorcycle with catalytic converters and O2 sensors, the three way Cat will reduce the parts per million of HC, and the percentage of CO2 to a point where they will just barely show up on the 4-gas tester, shown in the illustration at the right.. In this instance disregard HC and % of CO, and simply use the CO2, O2, and Air Fuel Ratio (AFR) if your tester has AFR.

Note: % of CO2 is the most important indicator of combustion.

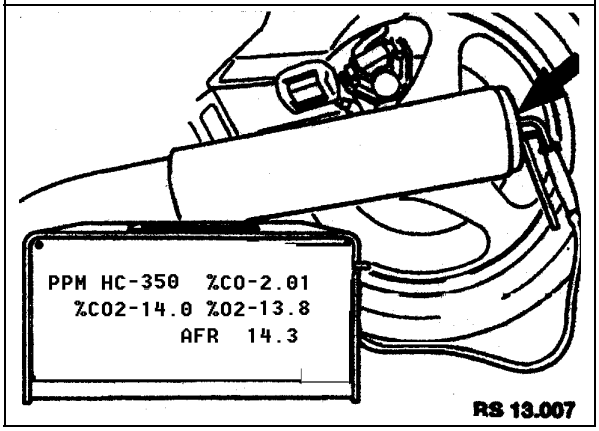


On motorcycles without catalytic converters it may be necessary to adjust the CO content of the exhaust gas at the CO potentiometer (left side of bike under the seat) with a medium flat blade screw driver.

Idle speed CO content:....1.5 ⑥ 0.5 %



Models with-out Catalytic converters - as shown in the illustration at the right.



Note: % of CO2 is the most important indicator of combustion.